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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
ODLAND, KATHRYN P	
ART UNIT	**PAPER NUMBER**
3743	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/775,891	BALDWIN ET AL.	
	Examiner	Art Unit	
	Kathryn Odland	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *50-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *50-69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This is a response to the amendment dated September 13, 2004. Claims 1-49 have been cancelled and claims 50-69 are under consideration.

Response to Arguments

1. Applicant's arguments filed September 13, 2004 have been fully considered but they are not persuasive.

Applicant argues, "Added independent claim 50 is directed to a connector that is specifically adapted for use with a femur having a prosthetic hip implant." Applicant is reminded that intended use does not hold patentable weight in apparatus claims. Nonetheless, the primary reference, Dall et al. clearly recites hip replacements in column 1, lines 5-15. The device of Dall et al. and that in combination with Judat et al. is capable of performing the function.

Applicant further argues, "Accordingly, it is submitted that Dall et al. do not suggest anything other than the use of screws for securing the elements 90 and 140 to the femur." However, given the structure of Dall et al. cable apertures and cable attachment are clearly recited. This serves as a mechanism for attachment. Further, claim 50 merely recites, "at least one distal tip of the arcuate upper portion body configured for biting into the greater trochanter so that the arcuate upper portion securely cradles and grips the greater trochanter to avoid formation of screw through the opening in the upper body portion and use of bone screws extending threthrough." However, this limitation is met via the combination of Dall et al. in view of Judet et al.

Judet et all clearly show at least one distal tip of the arcuate upper portion body (@4a) configured for biting into the greater trochanter so that the arcuate upper portion securely cradles and grips the greater trochanter to avoid formation of screw through the opening in the upper body portion and use of bone screws extending therethrough. In this combination, bone screws are not required. As seen in Figure 9 of Dall et al. the attachment via the modification would not require screws in the upper body portion. Further, the claw with the elongate lower portion may simply be connected to each other and connected to the bone via cables. Given the structure, bone screws are not required and the cables may simply be used. Method/functional limitations are not given patentable weight in apparatus claims, so long as the device is capable of performing the function and the device of Dall et al. as modified by Judet al. is capable.

Applicant further argues "substantially rigid" regarding the lower body portion and argues Dall et al. is lacking a rigid body. However, the scope of ***substantially rigid*** has not been established and that demonstrated by Dall et al. can be considered *substantially* rigid. Connector element (36b), the connector lower portion is labeled as a ladder plate. Column 6, lines 65-67 state that the ladder plates are made of metal such as stainless steel. Certainly stainless steel can be considered substantially rigid.

2. Applicant's arguments with respect to claim 50-69 have been considered but are moot in view of the new ground(s) of rejection. The new claims changed the scope and new combinations and rejections were applied accordingly. Applicant has chosen to cancel claims 1-49 and add broader claims 59 and 65. Thus, this rejection is deemed final.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claim 65 recites the limitation "the ends" in line 10. There is insufficient antecedent basis for this limitation in the claim. The scope of "the ends" is unclear.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 65 is rejected under 35 U.S.C. 102(b) as being anticipated by Dall et al. in US Patent No. 5,665,089.

Regarding claim 65, Dall et al. disclose connector capable of reattaching a greater trochanter to a femur, having an arcuate member (90) capable of cradling the greater trochanter; an elongate member (36b) for extending along the femur; one of bone screw openings and cable retaining structure (via 48) provided in at least one of the members; an adjustable connection between the members at adjacent mating ends thereof that allows the members to be secured in different predetermined positions relative to each other (via the connection between 36b and 90). The two elements can be attached to each other at various bone screw lot positions, as seen in figure 9. Further, portions of the ends of the members are capable of being in interference with each other in a direction extending away from and transverse to the femur with the

members secured together at the ends by the adjustable connection. The arcuate member simply cradles the greater trochanter. That shown in Dall et al. can broadly be considered arcuate and capable of cradling the greater trochanter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 66-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dall et al. in US Patent No. 5,665,089.

Regarding claim 66, Dall et al. disclose that as applied to claim 65. Further, one of the mating ends having a tongue having a generally T-shaped cross-sectional configuration and the other end comprises a groove having a generally T-shaped cross-sectional configuration complementary to that of the tongue to allow the tongue to slide in the groove with the tongue secured against being shifted out from the groove in a direction transverse to the sliding of the tongue is considered to be an equivalent to any other attachment method since applicant does not recite the criticality to an integral or separable system.

Regarding claim 67, Dall et al. as modified discloses that as applied to claim 66. Further, tongue end and the groove end both include screw apertures for being aligned

to receive a screw fastener extending therethrough is within the scope and can be considered an equivalent to any other connection method.

Regarding claim 68, Dall et al. as modified discloses that as applied to claim 65. Further, an arcuate member that includes cable-retaining structure and has a portion including the cable retaining structure that is narrower than the elongate member to minimize bending of a cable as the cable exits the retaining structure for extending about the femur and greater trochanter would be obvious to one with ordinary skill in the art. It would be obvious to one with ordinary skill in the art to further have cables on the upper portion for the purpose of enhanced attachment.

Regarding claim 69, Dall et al. as modified discloses that as applied to claim 68. Further, a cable retaining structure that includes a cable opening in the arcuate member portion, and the arcuate member portion includes an aperture and a cable holding device carried in the aperture of the narrow arcuate member for being advanced in the aperture to secure the cable in the cable opening is within the scope of the modification as discussed above with respect to claim 68.

9. Claims 50-54 and 56-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dall et al. in US Patent No. 5,665,089 in view of Judet et al. in US Patent No. 5,591,168 and further in view of Schlapfer et al. in US Patent No. 5,993,449.

Regarding claim 50, Dall et al. recite connector **capable of** engaging a femur that has an upper head end thereof with a prosthetic hip implant including a stem extending

in the femur and a ball projecting from the femur head end, see column 1. The connector device has an elongate lower portion (36b) for extending along the femur below the head end thereof; a substantially rigid body of the lower portion, as recited in column 6, lines 50-58. Stainless steel is considered substantially rigid and the current application specification does not demonstrate the scope of substantially rigid that would negate steel to be considered within the scope. The device has a plurality of cable openings (48) in the rigid lower portion body for receiving cables extending therethrough and about the femur; a plurality of apertures in the rigid lower portion body (such as 44); a plurality of holding devices (such as 58, etc.) configured to be carried on the rigid lower portion body.

However, Dall et al. do not recite an upper portion for greater trochanter reattachment to the femur upper head end; a body of the upper portion that has a predetermined arcuate configuration to cradle the greater trochanter; and at least one distal tip end of the arcuate upper portion body configured for biting into the greater trochanter so that the arcuate upper portion body securely cradles and grips the greater trochanter to avoid formation of screw through openings in the upper portion body and use of bone screws extending therethrough for securing the upper portion body to the greater trochanter and that may otherwise interfere with the prosthetic stem in the femur. On the other hand, Judet et al. teach a body that has a predetermined arcuate configuration to cradle the greater trochanter, as seen in figure 5; and at least one distal tip end of the arcuate upper portion body configured for biting into the greater trochanter so that the arcuate upper portion body securely cradles and grips the greater trochanter,

as seen in figure 5. Therefore, it would be obvious to one with ordinary skill in the art to modify the invention of Dall et al. to provide a claw with at least one extension hook for the purpose of better grasping. Regarding the phrase, "to avoid formation of screw through openings in the upper portion body and use of bone screws extending therethrough for securing the upper portion body to the greater trochanter and that may otherwise interfere with the prosthetic stem in the femur," the device is capable of being used without screws. Dall et al. clearly disclose cables and it would be obvious in the modification to include cable apertures and cables. Moreover, the scope of the upper body portion is extraordinarily broad and the tip and portions below have no screw openings.

Additionally, Dall et al. does not recite a plurality of apertures in the rigid lower portion body where there are a plurality of holding devices configured to be carried on the rigid lower portion body in the apertures for being advanced therein for securing the cables in the cable openings to secure the lower portion to the femur. On the other hand, Schlapfer et al. teach a screw (18) cable (14) lock feature. Thus, it would be obvious to one with ordinary skill in the art to further modify the invention of Dall et al. to include an enhanced cable-locking feature for the purpose of enhanced securement.

Regarding claim 51, Dall et al. as modified disclose that as applied to claim 50, as well as a lower portion body includes bone screw slots (44) extending therethrough with the lower portion body having a longitudinal axis and the slots being elongated along the lower portion body axis to allow bone screws to be extended through the

slots. It would be obvious if not inherent to include the ability to have the screws be inserted at various angles to the axis to avoid contacting the prosthetic stem in the femur. Bushing mounts are extremely known in the medical connecting art. Further, the scope of angle has not been established. Thus, there will be some ability in the system of Dall et al. to insert the screws at different angles.

Regarding claim 52, Dall et al. as modified disclose that as applied to claim 50, as well as a lower portion body that includes bone screw through openings having tapered walls extending thereabout to provide a compression fit with bone screws received and tightened therein and for drawing the arcuate upper portion body tightly against the greater trochanter, as seen in figures 3 and 4. Further, the current application specification states that compression slots are well known in the art.

Regarding claim 53, Dall et al. as modified discloses that as applied to claim 50 as well as an upper portion body that includes at least one cable retaining structure for receiving a cable extending there along and about the greater trochanter and femur head end to secure the greater trochanter thereon is within the scope of the modification and would be obvious to one with ordinary skill in the art.

Regarding to claim 54, Dall et al. disclose that as applied to claim 53 as well as an upper portion body that includes a portion proximal to the lower portion that is narrower than the lower portion body, the cable retaining structure comprises a cable

opening in the body portion, the body portion includes at least one aperture and a holding device configured to be carried on the narrow body portion in the aperture thereof is within the scope of the invention and modification and would be obvious to one with ordinary skill in the art.

Regarding claim 56, Dall et al. as modified disclose that as applied to claim 50. Further, an upper portion body and the lower portion body are integral would be obvious to one with ordinary skill in the art for it has been held that it involves only routine skill in the art to make something that was formerly separable integral. Further, as demonstrated by the current application claim 57, there is no criticality to having the device integral.

Regarding claim 57, Dall et al. as modified disclose an upper portion body and lower portion body are distinct members, and an adjustable connection between the distinct upper portion body member and lower portion body member for allowing the body members to be adjustably secured to each other along different size femurs is within the scope of the modification.

Regarding claim 58, Dall et al. disclose that as applied to claim 57. Further, a sliding dovetail fit between the upper portion body member and the lower portion body member to secure the attached body members against shifting in a direction away from and transverse to the femur is within the scope of the modification. The current

application specification does not recite the criticality for any connection. Thus, any connection can be considered an equivalent.

10. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dall et al. in US Patent No. 5,665,089 in view of Judet et al. in US Patent No. 5,591,168 and further in view of Schlapfer et al. in US Patent No. 5,993,449 and further in view of Getscher et al. in US Patent No. 3,824,995.

Regarding to claim 55, Dall et al. disclose that as applied to claim 50. However, an upper portion body that includes a driver opening generally aligned with and opposite the distal tip end allowing a driver tool to engage therewith for driving the tip end into the greater trochanter from a remote position relative thereto. On the other hand, Getscher et al. teach a trochanter device that has an opening at the distal tip that is capable of allowing a drive to engage therewith. Thus, it would be obvious to one with ordinary skill in the art to further modify the device to have an opening that is capable of allowing a driver.

11. Claims 59-61 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dall et al. in US Patent No. 5,665,089.

Regarding claim 59, Dall et al. disclose a connector capable of reattaching a greater trochanter to a femur having an elongate lower portion (36b) for extending along the femur; a plurality of bone screw openings (such as 44) in the elongate lower portion for fastening the lower portion along the femur; an arcuate upper portion (90) configured

for cradling the greater trochanter. Dall et al. also disclose a cable retaining structure where it would be obvious to expand the cable to have the cable retaining structure include the arcuate upper portion for receiving a cable extending therealong and about the greater trochanter and femur for securing the arcuate upper portion thereto.

Regarding claim 60, Dall et al. as modified disclose that as applied to claim 59, as well as lower and upper portions have a transverse width dimension with the arcuate upper portion being narrower in the width dimension than the elongate lower portion to minimize bending of the cable as the cable exits the retaining structure for extending about the femur and greater trochanter, as seen in figure 9. Element 90 is less wide than (36b) as seen when they overlap.

Regarding claim 61, Dall et al. as modified disclose that as applied to claim 60 wherein it would be obvious to include a cable retaining structure where the narrow arcuate upper portion includes an aperture and a cable holding device carried in the aperture of the narrow arcuate upper portion for being advanced in the aperture to secure the cable in the cable opening for the purpose of better attachment.

Regarding claim 64, Dall et al. as modified disclose that as applied to claim 59 as well as an elongate lower portion and arcuate upper portion that are either integral with each other or distinct members from each other. It would appear that they would either be integral or separable.

12. Claims 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dall et al. in US Patent No. 5,665,089 in view of Getscher et al. in US Patent No. 3,824,995.

Regarding claim 62, Dall et al. as modified disclose that as applied to claim 61. However, Dall et al. does not recite a narrow arcuate upper portion including a tooth for biting into the greater trochanter. On the other hand, Getscher et al. teach a tooth (@26) capable of performing the function as claimed. Thus, it would be obvious to one with ordinary skill in the art to modify the invention of Dall et al. to include a tooth, as taught by Getscher et al. for the purpose of better gripping.

Regarding claim 63, Dall et al. as modified disclose that as applied to claim 59. However, Dall et al. do not explicitly recite an arcuate upper portion that includes a driver opening for allowing a driver tool to engage therewith and manipulate the arcuate upper portion from a remote position relative to the greater trochanter and femur. On the other hand, Getscher et al. teach a tooth (@26) with an opening capable of being used with a driver. Thus, it would be obvious to one with ordinary skill in the art to modify the invention of Dall et al. to include a tooth with an opening capable of being used with a driver, as taught by Getscher et al. for the purpose of better gripping and manipulation of the claw-shaped member.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathryn Odland whose telephone number is (703) 306-3454. The examiner can normally be reached on M-F (7:30-5:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry A Bennett can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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